



## NATIONAL RECONNAISSANCE OFFICE

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**FOR IMMEDIATE RELEASE**  
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### **NROL-36 Features Auxiliary Payloads**

On August 2, 2012 the National Reconnaissance Office (NRO) is scheduled to launch NROL-36 from Vandenberg Air Force Base Space Launch Complex-3E. NROL-36 is the last of four NRO launches in 2012. The NRO Office of Space Launch has worked closely with the primary mission team to take advantage of the extra performance capability, volume and structural capacity on the Atlas V launch vehicle to make this launch the first NRO rideshare mission. The auxiliary payload is not only the first of its kind for the NRO but for any Atlas V mission. As such, it will pave the way for many more rideshare opportunities on Evolved Expendable Launch Vehicle (EELV) class missions.

“We have long recognized that there are benefits and efficiencies to be gained through rideshare in space launch,” said Ms. Betty Sapp, Director National Reconnaissance Office. “These benefits include opportunities to conduct scientific research and demonstrate and apply emerging technologies through the use of small satellites.” United Launch Alliance (ULA), launch provider for NROL-36, redesigned the Atlas V Centaur upper stage pressure system providing more volume and structural capacity on the aft-bulkhead of the upper stage. The NRO and ULA partnered to develop an Aft Bulkhead Carrier (ABC), which will be used on this mission to affix the Operationally Unique Technologies Satellite, or OUTSat. The OUTSat consists of 11 CubeSats integrated into Poly-Picosat Orbital Deployers (P-PODS) that are in turn integrated into the Naval Postgraduate School CubeSat Launcher (NPSCuL).

The NRO funded the NPS to develop NPSCuL, which is an auxiliary payload platform that can attach multiple P-PODS to a single adaptor and allows up to 24 single-unit (1U) CubeSats to be launched. The CubeSats on OUTSat are sponsored by either the NRO Mission Support Directorate (MSD) or NASA's Launch Services Program (LSP) and were developed and tested by a number of laboratories and universities working closely with their government sponsor and/or customer/user. The CubeSats are set to deploy after primary spacecraft activities take place to demonstrate cutting edge technologies, conduct unique scientific experiments and prove high tech operational concepts.

Seven NRO-sponsored CubeSats:

- Two developed by the Army Space and Missile Defense Command, called SMDC 1.1 and SMDC 1.2, with communication demonstrations supporting the tactical warfighter;

- Two from Aerospace Corp., called AeroCube 4a and 4b, will implement a smallsat communications tech demo;
- One from Aerospace Corp., called AeroCube 4, consisting of a launch vehicle environment data logger and deorbit device demonstration;